

REMARKS

Claims 4 and 5 are pending in this application. By this Amendment, claim 4 is amended, claims 1–3 are canceled and claim 5 is added. Support for the amendments to claims 4 and 5 can be found, for example, in canceled claim 1 and paragraph [0044], respectively. No new matter is added. Applicants respectfully request reconsideration and prompt allowance in view of at least the following remarks.

The Office Action rejects claims 1 and 2 under 35 U.S.C. §102(a) as anticipated by U.S. Patent No. 6,462,318 (Furuuchi). Applicants consider this rejection moot in view of the cancellation of claims 1 and 2.

The Office Action rejects claims 2 and 4, and alternatively claims 1 and 3, under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 4,041,435 (Gaia). Applicants consider the rejections to claims 1–3 moot in view of their cancellation. Applicants respectfully traverse the rejection to claim 4.

Gaia does not disclose "wherein a thin-walled component formed in the low-melting metal member blows out as an effect of the heat-generating member generating heat, so that the lateral cross section of at least part of the low-melting metal member divides into at least two independent cross sections," as recited in claim 4. The Office Action alleges the conductor 642 in Gaia discloses a "heat-generating member" and the fusible element 646 discloses a "low-melting metal member." However, the conductor 642 in Gaia does not generate heat with the effect of blowing out a thin-walled component formed in the low-melting metal member "so that the lateral cross section of at least part of the low-melting metal member divides into at least two independent cross sections." Rather, the heat absorber 640 rises in temperature as it absorbs heat generated by the conductor 642 (Gaia col. 40, lines 41–43). The rise in temperature of the heat absorber 640 softens the solder that holds the connector 648 against the right-hand end of the conductor 642 (Gaia col. 40, lines 45–47).

When the solder reaches a high enough temperature, the solder fails and the spring 650 pulls the connector 648 away from the right-hand end of the conductor 642, thereby opening the circuit. The effect of the conductor 642 generating heat is that the solder softens and the circuit opens when the connector 648 disengages with the conductor 642. Thus, the heat generated by the conductor 642 does effect a change in the fusible element 646. Therefore, Gaia does not disclose "wherein a thin-walled component formed in the low-melting metal member blows out as an effect of the heat-generating member generating heat, so that the lateral cross section of at least part of the low-melting metal member divides into at least two independent cross sections," as recited in claim 4. Applicants respectfully request the withdrawal of the rejection to claim 4.

Regarding claim 5, claim 5 is patentable, at least in view of the patentability of claim 4, from which it depends, as well as for the additional features it recites. Namely, because claim 5 recites "wherein the thin-walled component formed in the low-melting metal member blows out as an effect of the heat-generating member generating heat, so that the lateral cross section along the entire length of the low-melting metal member in the direction of the current flow divides into at least two independent cross sections," Gaia does not disclose claim 5 because the conductor 642 (alleged heat-generating member) in Gaia does not effect a change in the fusible element 646 (alleged low-melting metal member). Therefore, Applicants respectfully assert that claim 5 is patentable over Gaia.

The Office Action rejects claim 2 and 4 under 35 U.S.C. §103(a) as unpatentable over Furuuchi in view of Gaia. Applicants respectfully traverse the rejection.

The Office Action admits that Furuuchi does not disclose "a thin-walled component" formed in the low-melting metal member (Office Action page 5). The Office Action alleges that Furuuchi in view of Gaia cures this deficiency. However, as discussed above, Gaia does not disclose "wherein a thin-walled component formed in the low-melting metal member blows

out as an effect of the heat-generating member generating heat, so that the lateral cross section of at least part of the low-melting metal member divides into at least two independent cross sections," as recited in claim 4. Therefore, Gaia does not cure the deficiency of Furuuchi and Furuuchi in view of Gaia does not disclose or suggest claim 4. As claim 5 depends from claim 4, Furuuchi in view of Gaia do not disclose or suggest claim 5. Therefore, Applicants respectfully request withdrawal of the rejection.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 4 and 5 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Jesse O. Collier
Registration No. 53,839

JAO:KRG/hjr

Attachment:

Petition for Extension of Time

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OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

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